DRAFT
27 August 1957

BRIEFING PAPER FOR THE JOINT CHIEFS OF STAFF

Gentlemen,

Our object in this presentation is to outline for you intelligence
of critical value to major national intelligence objectives which we
anticipate will result from the coverage of certain Soviet targets within
the range of U-2 aircraft. Whereas we are vitally interested in acquiring
precise target information for the application of our strategic weapons,
this is not one of the critical objectives of this briefing.

We propose to attempt to define for you the unique role which
AQUATONE-type photography plays in the production of National Intel-
ligence estimates, which provide the basis for important decisions
affecting the National Security. All of the principal targets we will
discuss fall into those strengths that have been determined by the
National Intelligence Community to be the most significant in the Soviet
ability to strike at the United States.

These are: The Soviet guided missile system, the Soviet long
range bomber force, and Soviet nuclear energy production system.

Our present intelligence on all of these critical Soviet capabilities
still contains major areas of ignorance. A significant quantity of our
existing information on these strengths is fragmentary, and, consequently,

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our present estimates, in some cases, admit to significant margins of error.

US defense plans, and budgets to support them, involve vast sums of money and allocation of effort, and, admittedly, are at present based on information having these significant margins of error. Accordingly, such plans and budgets can be materially affected by reducing the margins of error. And we feel that in the AQUATONE system we have an important tool in reducing these errors.

In the critical field of Soviet guided missile development, we find some of our major intelligence gaps. Other intelligence sources have provided knowledge of at least 260 ballistic missile firings on the KAPUSTIN YAR range since 1953. While during AQUATONE operations in July of 1956 two small probable missile facilities were photographed, it was not until about two weeks ago that we had any direct insight into a major physical facility supporting the USSR ballistic missile test program. We have had no current information regarding launching pads, erection and handling equipment, guidance installation and equipment, test stands, fuel storage, and other associated launching devices. Data on these items are essential for a firm statement as to the size, type, and pay load of missiles, guidance systems, and types of engines used for propulsion. This admitted type of information is vital for the production of estimates of present and potential Soviet missile capabilities.

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Now, at TYURA TAM, we have photographed and can study in detail a relatively new range still under construction. The overcast on the far oblique in this display obscures our ability to identify what is probably the actual launching area--with its associated equipment, and--conceivably--actual long-range missiles. There is, however, convincing information on the range support elements. We intend to go back if possible to clarify the launching site at TYURA TAM. It is our expectation that coverage of KAPUSTIN YAR would be extraordinarily rewarding in establishing for the first time a set of basic data against which further intelligence coverage from all sources could lead us to improve significantly our estimates on the state of GM development in the Soviet Union. This photograph on TYURA TAM permits the first visual evidence bearing on the timing for the Soviet ICBM test program. This timing is the critical aspect in our GM estimates and at the moment would be especially pertinent in an evaluation of current Soviet claims on ICBM progress.
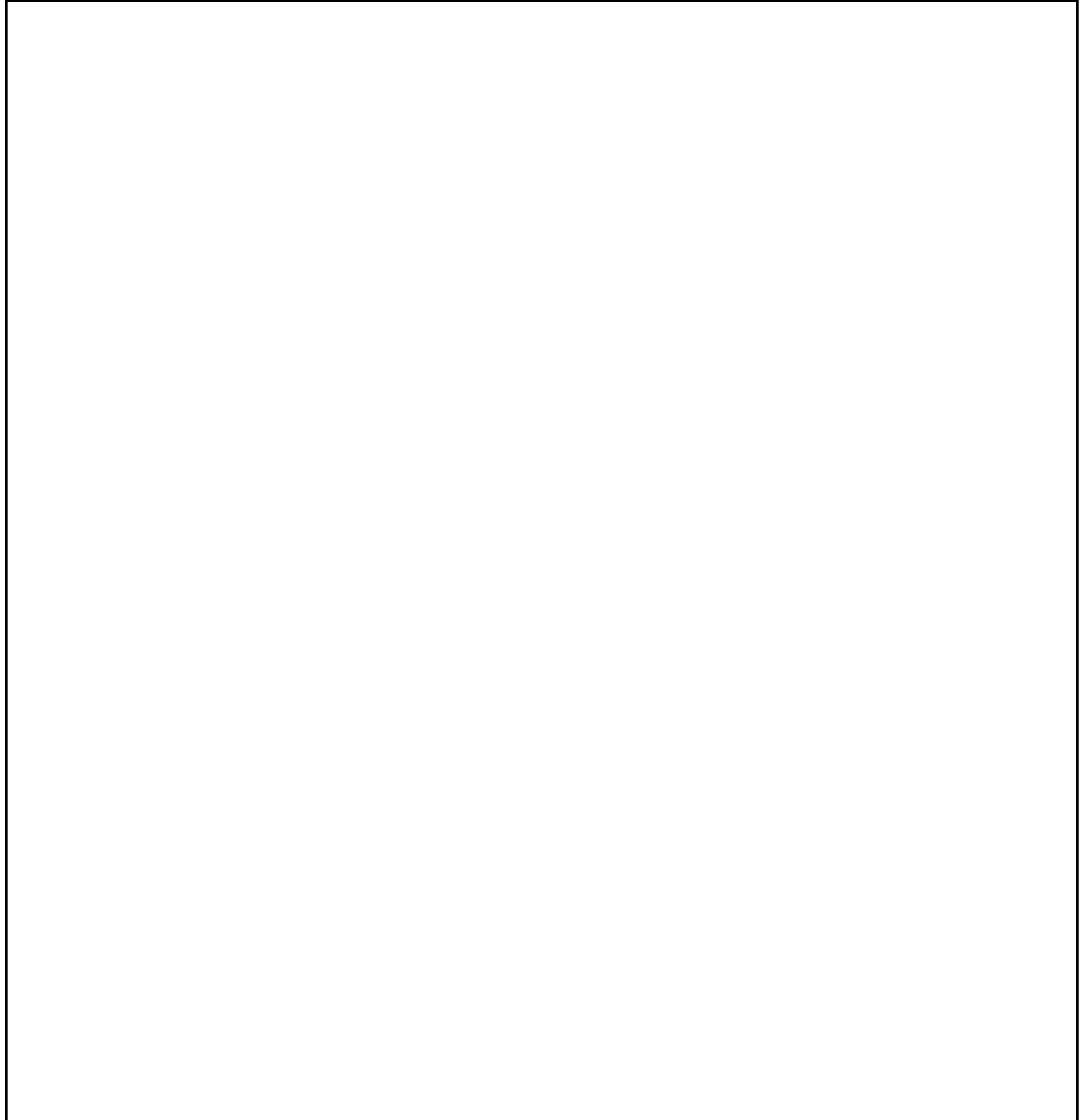
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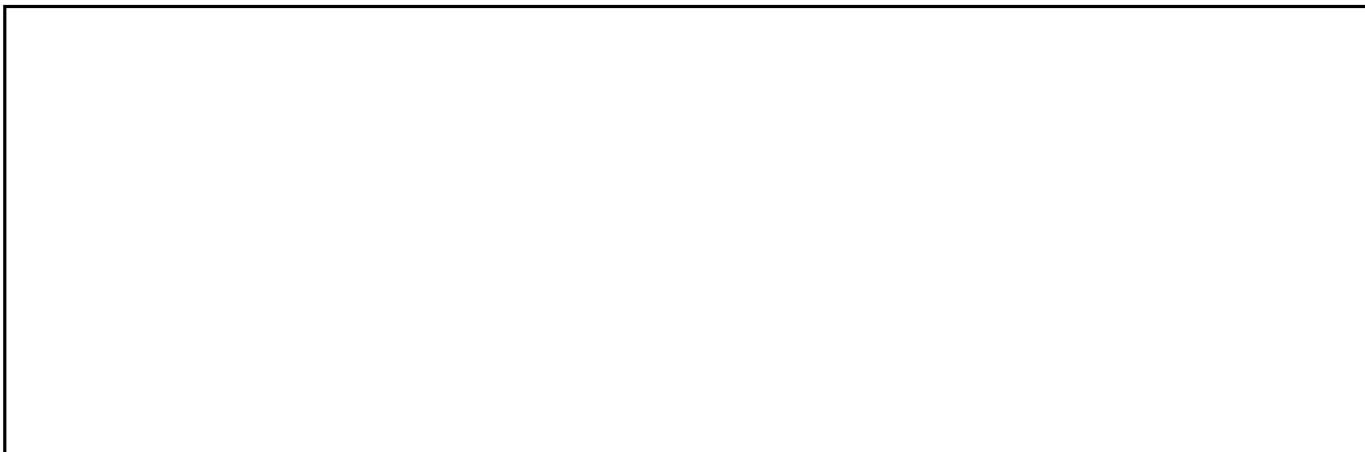
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Our principal estimate or problems with regard to the Soviet

long-range bomber force relate to its capabilities for attack on the

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US, both in numbers of delivery vehicles available to the force and in the availability of nuclear weapons of various types. While our exploitation of a wide variety of intelligence data has permitted broad estimates of the strength and capabilities of the long-range bomber force, there are significant gaps which we believe could be narrowed by additional photographic coverage. To illustrate, this photograph of the Moscow/Fili aircraft factory, the only known producer of BISON jet heavy bombers, has enabled us to determine more precisely the production capacity of the plant. Similar photography of the aircraft factories at VORONEZH, KUYBYSHEV, KAZAN, and IRKUTSK--identified from other sources as producing or capable of producing heavy bombers--would enable us to measure their actual and potential production capabilities with a degree of precision not now possible.

Our knowledge of the true stature of the Soviet heavy bomber force has been limited not only by lack of precise information on production facilities but equally by the lack of first hand observation of the home bases of this force. Photography of the BISON bases at SARATOV/ENGELS and UKRAINA and the BEAR turbo prop heavy bomber bases at CHEPELEVKA and BELAYA TSERKOV would provide bench marks enabling us to ascertain far more accurately than is now possible the size and deployment of the Soviet heavy bomber force.

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The point must not be overlooked that valuable intelligence by-products also can be anticipated as a result of the coverage of the primary systems we have discussed. Route photography can be expected to yield significant details of other Soviet air installations, transportation systems, industrial facilities, and other economic and military targets which could be of a significance only slightly less than the information we anticipate on primary objectives. One of the outstanding bonus effects that we know will be derived by future exercise of the AQUATONE capability will be an increase in our knowledge of Soviet air defense capabilities. Fairly precise data on the general deployment and characteristics of Soviet defensive electronic sites in otherwise inaccessible areas can be obtained through the capability of AQUATONE equipment to detect and record electronic intelligence data. This increase in knowledge can only result in a firmer basis for operational plans that involve employment of our nuclear strike force. And it also must be noted that the exercise of the AQUATONE capability over otherwise largely inaccessible areas of the Soviet Union could reveal installations and activities of a completely unknown but highly significant nature. One striking example of this is contained in this photograph. It shows an air-field in the TASHKENT area of the Soviet Union, close to the Afghan border where we had previously known only of the deployment of Soviet tactical aircraft. However, this photography revealed that an airstrip of approxi-

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mately 15,000 feet in length is under construction. The establishment of

such a facility in an area not normally considered to be the site of long-

range air force operations opens up a new region of research into possible

Soviet plans for employment of its long-range aircraft. As a specific

by-product, AQUATONE photography yields terrain information from

which accurate radar navigation and bombing charts can be constructed.

It would be remiss to contend that even completely satisfactory

photography of all of the installations we have mentioned would completely

eliminate all of our areas of uncertainty in existing estimates of these

critical Soviet strengths. However, it can be said that satisfactory

photography of these installations would provide new information of a

quality and quantity not now obtainable from any other source on these

primary targets. This information, properly exploited, would enable

us, first, to establish the degree of validity of our existing estimates

and, second, to refine, and expand, these estimates on the basis of a

larger, more factual, and more complete body of information bearing

on the specific strengths concerned.

We also must point out that it is not the belief of the intelligence

community that a photographic/electronic reconnaissance proggam even

of the widest scope would in itself enable us to bring our basic National

Intelligence estimates to perfection. Other sources of information must

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constantly be exploited to derive those types of information that cannot be revealed by a photograph.

However, the AQUATONE capability gives us the opportunity to penetrate otherwise inaccessible areas of the Soviet Union and to obtain data--not otherwise obtainable from any other source--that, in conjunction with other intelligence, will enable us to furnish the national planners, policy makers and decision makers with more valid estimates of primary Soviet strengths, existing and potential. And we feel it is axiomatic that given these higher quality estimates national plans and policies to counter the pre-emptive and resistive strength of the Soviet Union can be formulated on a more positive, more efficient, more economical, and more timely basis than now is possible.